# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 2

#### IN THE MATTER OF:

Shieldalloy Metallurgical Corporation Superfund Site, Borough of Newfield, Gloucester County and the City of Vineland, Cumberland County, New Jersey

Shieldalloy Metallurgical Corporation and TRC Companies, Inc.,

#### Respondents

Proceeding under Sections 104, 106, 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9604, 9606, 9607, and 9622.

Index Number CERCLA-02-2014-2029

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMEDIAL DESIGN, OPERABLE UNIT 2

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#### I. JURISDICTION AND GENERAL PROVISIONS

- 1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("EPA") and Shieldalloy Metallurgical Corporation ("SMC") and TRC Companies, Inc. ("TRC") (collectively, "Respondents"). This Settlement Agreement provides that Respondents shall undertake a Remedial Design ("RD"), including various procedures and technical analyses, to produce a detailed set of plans and specifications for implementation of the Remedial Action selected in the Record of Decision that EPA issued for the Shieldalloy Metallurgical Superfund Site ("Site"), Operable Unit 2 ("OU 2"). In addition, Respondents shall reimburse the United States for certain response costs that it incurs in connection with this Settlement Agreement, as provided herein.
- 2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 106, 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), as amended, 42 U.S.C. §§ 9604, 9606, 9607, and 9622. This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (Jan. 29, 1987), and further delegated to Regional Administrators on May 11, 1994, by EPA Delegation Nos. 14-14-C and 14-14-D. This authority was further delegated on November 23, 2004, by the Regional Administrator of EPA Region 2 to the Director of the Emergency and Remedial Response Division by EPA Region 2 Delegation Nos. 14-14-C and 14-14-D.
- 3. EPA and Respondents recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of fact, conclusions of law, and determinations in Sections IV and V of this Settlement Agreement. Respondents agree to comply with, and be bound by, the terms of this Settlement Agreement and further agree that they will not contest the basis or validity of this Settlement Agreement or its terms.
- 4. The objectives of EPA and Respondents in entering into this Settlement Agreement are to protect public health and welfare or the environment at the Site by the design of response actions at the Site by Respondents, to reimburse Future Response Costs of EPA, and to resolve the claims of EPA against Respondents as provided in this Settlement Agreement. This Settlement Agreement concerns implementation of the OU 2 Remedial Design. OU 2 addresses non-perchlorate contamination in the soil, surface water, and sediment at the Site. This Settlement Agreement does not concern any other operable units at the Site.
- 5. In accordance with the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300, et seq., as amended ("NCP"), and Section 121(f)(1)(F) of CERCLA, 42 U.S.C. § 9621(f)(1)(F), EPA notified the State of New Jersey (the "State") on November 20, 2014, of negotiations with potentially responsible parties regarding the implementation of the

remedial design for the Site, and EPA has provided the State with an opportunity to participate in such negotiations and be a party to this Settlement Agreement.

6. In accordance with Section 122(j)(1) of CERCLA, 42 U.S.C. § 9622(j)(1), EPA notified the Department of Interior and the National Atmospheric and Oceanic Administration on December 9, 2014, of negotiations with a potentially responsible party regarding the release of hazardous substances that may have resulted in injury to the natural resources under federal trusteeship and encouraged the trustees to participate in the negotiation of this Settlement Agreement.

#### II. PARTIES BOUND

- 7. This Settlement Agreement applies to and is binding upon EPA and upon Respondents and their successors and assigns. SMC shall be liable for fully financing and performing all Work required by the Settlement Agreement. TRC shall also be liable for fully financing and performing all Work required by the Settlement Agreement except for portions of the Work to the extent related to the contaminant perchlorate or radioactive contamination. Any change in ownership or corporate status of a Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Settlement Agreement. The signatories to this Settlement Agreement certify that they are authorized to execute and legally bind the parties they represent.
- 8. Respondents shall ensure that their contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and comply with this Settlement Agreement within 14 days after the Effective Date of this Settlement Agreement. For any contractors retained after the Effective Date, Respondents shall ensure that such contractors receive a copy this Settlement Agreement within 14 days after they are hired. Respondents shall be responsible for any noncompliance with this Settlement Agreement.

#### III. DEFINITIONS

- 9. Unless otherwise expressly provided herein, terms used in this Settlement Agreement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or its implementing regulations. Whenever terms listed below are used in this Settlement Agreement, in the documents attached to this Settlement Agreement, or incorporated by reference into this Settlement Agreement, the following definitions shall apply solely for purposes of this Settlement Agreement:
  - a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9601, et seq.
  - b. "Day" shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or federal holiday, this period shall run until the close of business of the next working day.

- c. "Effective Date" shall be the effective date of this Settlement Agreement as provided in Section XXVIII (Effective Date and Subsequent Modification).
- d. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.
- e. "Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including, but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to Paragraph 55 (costs and attorney's fees and any monies paid to secure access, including the amount of just compensation), and Paragraph 91 (Work Takeover)." Future Response Costs shall also include all Interim Response Costs.
- f. "Institutional controls" shall mean non-engineered instruments, such as administrative and/or legal controls, that help to minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land and/or resource use. Examples of institutional controls include easements and covenants, zoning restrictions, special building permit requirements, and well-drilling prohibitions.
- g. "Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with CERCLA § 107(a), 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.
- h. "Interim Response Costs" shall mean all costs, including direct and indirect costs:
  a) paid by the United States related to this Settlement Agreement for response actions involving the OU 2 Remedial Design for the Site, including the costs of negotiation of this Settlement Agreement, between October 1, 2014, and the Effective Date; or b) incurred for such response actions prior to the Effective Date, but paid after that date.
- i. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, et seq., including any amendments thereto.
- j. "NJDEP" or "State" shall mean the New Jersey Department of Environmental Protection
- k. "Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral.

- 1. "Parties" shall mean EPA and Respondents.
- m. "Performance Standards" shall mean the cleanup standards and other measures of achievement of the goals of the Remedial Action, set forth in the "Remediation Goals" section of the OU 2 ROD.
- n. "OU 2 Record of Decision" or "OU 2 ROD" shall mean the Record of Decision for Operable Unit 2 relating to the Site, and all attachments thereto that the Regional Administrator, EPA Region 2, or her delegate, signed on September 25, 2014.
- o. "Remedial Design" or "RD" shall mean those activities that Respondents shall undertake to develop the final plans and specifications for the Remedial Action pursuant to the Remedial Design Work Plan.
- p. "Remedial Design Work Plan" or "RD Work Plan" shall mean the document developed pursuant to Paragraph 36 of this Settlement Agreement and approved by EPA, and any amendments made thereto in accordance with this Settlement Agreement.
- q. "Section" shall mean a portion of this Settlement Agreement identified by a Roman numeral and includes one or more paragraphs.
- r. "Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto. In the event of a conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.
- s. "Site" or "SMC Site" shall mean the Shieldalloy Metallurgical Corporation Superfund Site, Borough of Newfield, Gloucester County, New Jersey and the City of Vineland, Cumberland County, New Jersey consisting of approximately 87.5 acres, as described in the OU 2 ROD and as depicted generally on Appendix C.
- t. "State" shall mean the State of New Jersey.
- u. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the OU 2 Remedial Design, and any modifications made thereto in accordance with this Settlement Agreement, as set forth in Appendix A of this Settlement Agreement. The Statement of Work is incorporated into this Settlement Agreement and is an enforceable part of this Settlement Agreement.
- v. "Waste Material" shall mean: 1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); 2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); 3) any "solid waste" under Section 1004(27) of the Solid Waste Disposal Act (also known as the Resource Conservation and

Recovery Act or "RCRA"), 42 U.S.C. § 6903(27); and 4) any mixture containing any of the above.

w. "Work" shall mean all activities Respondents are required to perform under this Settlement Agreement except those required by Section XIII (Record Retention).

#### IV. FINDINGS OF FACT

- 10. SMC is a Delaware Corporation with corporate offices located at 35 S.W. Boulevard, P.O. Box 768, Newfield, New Jersey 08344-0768.
- 11. The Site consists of approximately 87.5 acres. The former SMC manufacturing facilities and support areas (the "SMC Facility") are situated on 67.5 acres of land located predominantly in the Borough of Newfield, Gloucester County. The SMC Facility includes a 1.3-acre area known as the Eastern Storage Area, which SMC formerly used to store drums containing byproducts of the manufacturing processes. The Hudson Branch of the Maurice River ("Hudson Branch"), an intermittent stream, runs along the southern edge of the SMC Facility. The Site also includes a separate 19.8-acre parcel of farmland near the SMC Facility that is not the subject of this Settlement Agreement.
- 12. There are approximately 56,000 people living within a two mile radius of the Site, with the closest residence located less than 1/5 mile away. SMC leases portions of the Site to various companies, and employees of these companies are regularly employed on the Site.
- 13. SMC and/or its predecessor owners began operations at a manufacturing facility at the Site in approximately 1955, processing ores and minerals to produce primary and specialty metals and ferroalloys. The principal production processes generated metal, slag, and other byproducts. Raw materials contained the following metals, including but not limited to: chromium, copper, lead, nickel, and vanadium. General facility operations and spills led to contamination of the soil and groundwater at the Site. SMC ceased manufacturing operations at the Site in 2006.
- 14. SMC is the current owner of the real property that constitutes the Site. SMC has owned the Site since approximately 1955.
- 15. The Site was listed on the National Priorities List in 1983 pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605.
- 16. NJDEP was the lead agency for CERCLA activities relating to the Site from 1983 to 2008. NJDEP entered into Administrative Consent Orders with SMC in 1984 and 1988, as amended in 1989 and 1992, to investigate and remediate the Site. In 1996, NJDEP issued, and EPA approved, a record of decision selecting a remedy for Operable Unit 1 ("OU 1"). OU 1 addresses remediation of the non-perchlorate groundwater and is not the subject of this Settlement Agreement.

- 17. A Draft Final Feasibility Report for OU 2 was submitted to NJDEP in 1996. In 2006, NJDEP entered into an Administrative Consent Order with the Respondents requiring them to, among other things, implement the remedial design and remedial action for OU 2 (to address the non-perchlorate contamination in the soil, surface water, and sediment at the Site).
- 18. EPA became the lead agency for the Site in 2008. In 2010, the Respondents entered into an Administrative Settlement Agreement and Order on Consent with EPA, CERCLA Docket No. 02-2010-2017 ("2010 Settlement Agreement"). The 2010 Settlement Agreement required the Respondents to perform, among other things, a supplemental Remedial Investigation and Feasibility Study ("OU 2 Supplemental RI/FS") to further characterize the nature and extent of the non-perchlorate contamination found in the soil, surface water and sediment at the Site.
- 19. Analyses of samples taken during the OU 2 Supplemental RI/FS detected the following hazardous substances in the sediment of the Hudson Branch, including but not limited to, chromium, copper, lead, nickel, and vanadium. Exposure to the hazardous substances present in in the sediment of the Hudson Branch may cause adverse ecological effects to, among others, aquatic invertebrates, and birds.
- 20. Analyses of samples taken of the soil at the Eastern Storage Area during the OU 2 Supplemental RI/FS detected hazardous substances, including but not limited to, vanadium. Exposure to the hazardous substances present in the soil at the Eastern Storage Area may cause adverse human health effects by direct contact and ingestion. Exposure to the hazardous substances present in the soil at the Eastern Storage Area may cause adverse ecological effects to terrestrial plants and birds.
- 21. On June 27, 2014, pursuant to Section 117 of CERCLA, 42 U.S.C. §9617, EPA released a Proposed Plan for public comment identifying EPA's preferred remedy for OU 2. EPA published the Proposed Plan in a local newspaper of general circulation. EPA held a public meeting on July 9, 2014, to explain the selected remedy in the Proposed Plan and to accept oral and written comments from the public regarding the remedy.
- 22. EPA issued the OU 2 ROD on September 25, 2014.
- 23. TRC is a Delaware corporation, with its principal corporate offices located at 21 Griffin Road North, Windsor Connecticut 06095. Respondents allege that TRC and SMC have entered into a contractual relationship whereby TRC has agreed to assume certain cleanup liability otherwise held by SMC for all contaminants at the Site, with the exception of the contaminant perchlorate and radiological contamination. Similarly, Respondents allege that TRC has not assumed any liability or response costs under such contract with SMC in any way related to:
  - a. OU 3
  - b. alterations to structures, fencing or to otherwise fail to maintain engineering controls at the Site;
  - c. bodily injury or property damage related claims;

- d. new releases of contamination;
- e. changes in current or reasonably anticipated future land or resource use at the Site occasioned by SMC or any person or entity (as set forth in the ROD, the current and reasonably anticipated land use at the Site is industrial use); and
- f. natural resource damages.

#### V. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, as well as the Administrative Record supporting this Settlement Agreement, EPA has determined that:

- 24. The Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
- 25. The contamination found at the Site, as identified in the Findings of Fact above, includes "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
- 26. SMC is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
- 27. SMC is a responsible party as defined in Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is subject to this Settlement Agreement under Section 106(a) of CERCLA, 42 U.S.C. § 9606(a). SMC is liable for performance of response actions under this Settlement Agreement and for response costs incurred and to be incurred at the Site. Except as otherwise provided herein, TRC is jointly and severally liable with SMC for performance of the Work required by this Settlement Agreement, including payment of Future Response Costs.
  - a. SMC is the "owner" and/or "operator" of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).
  - b. SMC was an "owner" and/or "operator" of the facility at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).
- 28. The conditions described in the Findings of Fact, above constitute an actual or threatened "release" of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C.§ 9601(22).

#### VI. SETTLEMENT AGREEMENT

29. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby Ordered and Agreed that Respondents shall comply with all provisions of this Settlement Agreement, including, but not limited to, all attachments to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

#### VII. DESIGNATED PROJECT MANAGER AND COORDINATORS

- 30. Respondents shall retain one or more contractor(s) to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s). Respondents have designated, and EPA approves, TRC as the supervising contractor for implementation of the Work, with Patrick J. Hansen, P.E., as the TRC employee bearing principal responsibility for supervising such Work. Respondents shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least 30 days prior to commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondents. If EPA disapproves of a selected contractor, Respondents shall retain a different contractor and shall notify EPA of that contractor's name and qualifications within 30 days of EPA's disapproval. With respect to any contractor proposed to be Supervising Contractor, Respondents shall demonstrate that the proposed contractor has a quality system that complies with the *Uniform Federal Policy for* Quality Assurance Project Plans, Parts 1-3, EPA/505/B-04/900A though 900C (March 2005) by submitting the contractor's QMP. EPA will issue a notice of disapproval or an authorization to proceed.
- 31. Respondents shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondents required by this Settlement Agreement and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. Respondents have designated, and EPA approves, Patrick J. Hansen, P.E. of TRC as the Project Coordinator. To the greatest extent possible, the Project Coordinator shall be present on-site or readily available during Site Work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within 21 days following EPA's disapproval. Receipt by Respondents' Project Coordinator of any notice or communication from EPA relating to this Settlement Agreement shall constitute receipt by all Respondents.
- 32. EPA has designated Sherrel Henry of the Emergency and Remedial Response Division, Region 2, as its Remedial Project Manager. Except as otherwise provided in this Settlement Agreement, Respondents shall submit all submissions required by this Settlement Agreement to the Remedial Project Manager and NJDEP in electronic form, unless otherwise specified. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5" by 11", Respondents shall also submit paper copies of such exhibits to EPA. Respondents shall also submit documents to the Site attorney upon request. Respondents shall send all submissions required by this paragraph to the following addresses:

Sherrel Henry
Remedial Project Manager
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
290 Broadway, 20<sup>th</sup> Floor
New York, NY 10007-1866
henry.sherrel@epa.gov

and

New Jersey Department of Environmental Protection Attention: Donna Gaffigan 401 East State Street, 5<sup>th</sup> Floor, CN-028 P.O. Box 028 Trenton, NJ 08625-0028 donnagaffigan@dep.nj.gov

- 33. EPA's Remedial Project Manager shall have the authority, consistent with the NCP, to halt any Work required by this Settlement Agreement and to take any necessary response action when the Remedial Project Manager determines that conditions at the Site may present an immediate endangerment to public health, welfare, or the environment. The absence of the EPA Remedial Project Manager from the area under study pursuant to this Settlement Agreement shall not be cause for the stoppage or delay of Work.
- 34. Respondents shall have the right, subject to Paragraph 31, to change their designated Project Coordinator. Respondents shall notify EPA 15 days before such a change is made. The initial notification may be made orally, but shall be promptly followed by a written notice.

#### VIII. WORK TO BE PERFORMED

- 35. Respondents shall perform all action necessary to implement the Statement of Work.
- 36. RD Work Plan and Implementation.
  - a. Respondents shall submit to EPA a RD Work Plan for the design of the Remedial Action for OU 2 at the Site in accordance with the schedule specified in the SOW. The RD Work Plan shall provide for design of the remedies set forth in the OU 2 ROD, in accordance with the SOW and for achievement of the Performance Standards and other requirements set forth in the OU 2 ROD, this Settlement Agreement, and/or the SOW. Upon its approval by EPA pursuant to Section IX (EPA Approval of Plans and Other Submissions), the RD Work Plan shall be incorporated into and become enforceable under this Settlement Agreement.
  - b. The RD Work Plan shall be a comprehensive submittal that addresses the remedial

components identified in the ROD and shall include tasks, work plans, field work, data collection, and schedules as identified in the SOW for development of the RD for each component, that are necessary to ensure compliance with Performance Standards and ARARs as identified in the ROD. The RD Work Plan shall include the preparation and submission of a Pre-Design Investigation Report, the Preliminary RD Reports (30% completion), the Pre-Final RD Report (95% completion), and a Final RD Report (100% completion) (collectively, RD Reports) for each remedial component resulting in separate RDs for each remedial component. The draft RD Work Plan shall be organized by remedial components.

- c. Upon approval of the RD Work Plan by EPA pursuant to Section IX (EPA Approval of Plans and Other Submissions), and submittal of the Health and Safety Plan for all field activities to EPA and the State, Respondents shall implement the RD Work Plan. Respondents shall submit to EPA all plans, submittals, and other deliverables required under the approved RD Work Plan in accordance with the approved schedule for review. Unless otherwise directed by EPA, Respondents shall not commence further Remedial Design activities at the Site prior to approval of the RD Work Plan.
- 37. Respondents shall conduct all Work in accordance with the SOW, the OU 2 ROD, CERCLA, the NCP, and all applicable EPA guidance. The Project Coordinator shall use his or her best efforts to inform Respondents if new or revised guidances may apply to the Work.
- 38. Respondents shall perform the tasks and submit the deliverables that the SOW sets forth. EPA will approve, approve with conditions, modify, or disapprove each deliverable that Respondents submit under this Settlement Agreement and the SOW, pursuant to Section IX (EPA Approval of Plans and Other Submissions). Each deliverable must include all listed items as well as items that the RD Work Plan indicates Respondents shall prepare and submit to EPA for review and approval.
- 39. Upon EPA's approval, this Settlement Agreement incorporates any reports, plans, specifications, schedules, and attachments that this Settlement Agreement or the SOW requires. With the exception of extensions that EPA allows in writing or certain provisions within Section XVII of this Settlement Agreement (*Force Majeure*), any non-compliance with such EPA-approved reports, plans, specifications, schedules, and attachments shall be considered a violation of this Settlement Agreement and will subject Respondents to stipulated penalties in accordance with Section XVIII of this Settlement Agreement (Stipulated Penalties).
- 40. If any unanticipated or changed circumstances exist at the Site that may significantly affect the Work or schedule, Respondents shall notify the EPA Remedial Project Manager by telephone within 24 hours of discovery of such circumstances. Such notification is in addition to any notification required by Section XVII (*Force Majeure*).
- 41. If EPA determines that additional tasks, including, but not limited to, additional investigatory work or engineering evaluation, are necessary to complete the Work, EPA shall

notify Respondents in writing. Respondents shall submit a RD Work Plan to EPA for the completion of such additional tasks within 30 days of receipt of such notice, or such longer time as EPA agrees. The workplan shall be completed in accordance with the same standards, specifications, and requirements of other deliverables pursuant to this Settlement Agreement. EPA will review and comment on, as well as approve, approve with conditions, modify, or disapprove the workplan pursuant to Section IX (EPA Approval of Plans and Other Submissions). Upon approval or approval with modifications of the workplan, Respondents shall implement the additional work in accordance with the schedule of the approved workplan. Failure to comply with this Paragraph, including, but not limited to, failure to submit a satisfactory workplan, shall subject Respondents to stipulated penalties as set forth in Section XVIII (Stipulated Penalties)

42. Subject to the provisions of Section XX (Reservations of Rights by EPA), nothing in this Settlement Agreement requires TRC to perform any Work related to any of the matters designated in a. through f. in Paragraph 23.

### 43. Quality Assurance and Sampling.

Respondents shall summarize and submit to EPA the results of all sampling and/or tests or other analytical data that they generate, or was/were generated on their behalf, with respect to implementing this Settlement Agreement in accordance with the requirements of the SOW. Respondents shall maintain custody of all information and data that the Final Remedial Design Report and any deliverable relied upon or referenced. Upon EPA's request, Respondents shall provide such information and data to EPA.

## 44. Emergency Response and Notification of Releases.

a. In the event of any action or occurrence during performance of the Work, which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release and shall immediately notify the National Response Center at 800-424-8802 and the EPA Remedial Project Manager, or, in the event of his/her unavailability, the Chief of the Mega Projects Section at 212-637-4310. Respondents shall take such actions in consultation with EPA's Remedial Project Manager, or other available authorized EPA officer, and in accordance with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plans, the Contingency Plans, and any other applicable plans or documents developed pursuant to the SOW. In the event that Respondents fail to take appropriate response action as required by this Paragraph. and EPA takes such action instead, Respondents shall reimburse EPA all costs of the response action not inconsistent with the NCP, pursuant to Section XV (Payment of Response Costs).

b. In addition, in the event of any release of a hazardous substance from the Site, Respondents shall immediately notify the National Response Center at (800) 424-8802. Respondents shall submit a written report to EPA within 7 days after each release, setting forth the events that occurred and the measures taken, or to be taken, to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting required under Section 103(a) of CERCLA, 42 U.S.C. § 9603(a), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, et seq.

#### IX. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

- 45. After review of any plan, report, or other item that is required to be submitted for approval pursuant to this Settlement Agreement, in a notice to Respondents, EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondents modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Respondents at least one notice of deficiency and an opportunity to cure within 30 days, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.
- 46. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Subparagraph 45(a), (b), (c), or (e), Respondents shall proceed to take any action required by the plan, report, or other deliverable, as approved or modified by EPA subject only to their right to invoke the Dispute Resolution procedures set forth in Section XVI (Dispute Resolution) with respect to the modifications or conditions made by EPA. Following EPA approval or modification of a submission or portion thereof, Respondents shall not thereafter alter or amend such submission or portion thereof unless directed by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to Subparagraph 45(c) and the submission had a material defect, EPA retains the right to seek stipulated penalties, as provided in Section XVIII (Stipulated Penalties).
- 47. If, at any time during the Remedial Design process, Respondents become aware of the need for additional data beyond the scope of the approved RD Work Plan, Respondents shall have an affirmative obligation to submit to EPA's Remedial Project Manager, within 20 days, a memorandum documenting the need for additional data.

#### 48. Resubmission.

a. Upon receipt of a notice of disapproval, Respondents shall, 30 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other deliverable for approval. Any stipulated penalties applicable to the submission, as provided in Section XVIII, shall accrue during 30-day period or otherwise

specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 49 and 50.

- b. Notwithstanding the receipt of a notice of disapproval, Respondents shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA. Implementation of any non-deficient portion of a submission shall not relieve Respondents of any liability for stipulated penalties under Section XVIII (Stipulated Penalties).
- c. Respondents shall not proceed further with any subsequent activities or tasks until receiving EPA approval, approval on condition, or modification of the RD Work Plan. While awaiting EPA approval, approval on condition, or modification of this deliverable, Respondents shall proceed with all other tasks and activities that may be conducted independently of this deliverable, in accordance with the schedule set forth under this Settlement Agreement.
- d. For all remaining deliverables not listed above in Subparagraph 48(c), Respondents shall proceed with all subsequent tasks, activities, and deliverables without awaiting EPA approval on the submitted deliverable. EPA reserves the right to stop Respondents from proceeding further, either temporarily or permanently, on any task, activity, or deliverable at any point.
- 49. If EPA disapproves a resubmitted plan, report, or other deliverable, or portion thereof, EPA may again direct Respondents to correct the deficiencies. EPA shall also retain the right to modify or develop the plan, report, or other deliverable. Respondents shall implement any such plan, report, or deliverable as corrected, modified, or developed by EPA, subject only to Respondents' right to invoke the procedures set forth in Section XVI (Dispute Resolution).
- 50. If upon resubmission, a plan, report, or other deliverable is disapproved or modified by EPA due to a material defect, Respondents shall be deemed to have failed to submit such plan, report, or other deliverable timely and adequately, unless Respondents invoke the dispute resolution procedures in accordance with Section XVI (Dispute Resolution) and EPA's action is revoked or substantially modified pursuant to a Dispute Resolution decision issued by EPA or superseded by an agreement reached pursuant to that Section. The provisions of Section XVI (Dispute Resolution) and Section XVIII (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If EPA's disapproval or modification is not otherwise revoked, substantially modified, or superseded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XVI, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVIII.
- 51. In the event that EPA takes over some of the tasks, Respondents shall incorporate and integrate information supplied by EPA into the final reports.

52. All plans, reports, and other deliverables submitted to EPA under this Settlement Agreement shall, upon approval or modification by EPA, be incorporated into and enforceable under this Settlement Agreement. In the event EPA approves or modifies a portion of a plan, report, or other deliverable submitted to EPA under this Settlement Agreement, the approved or modified portion shall be incorporated into and become enforceable under this Settlement Agreement.

#### X. FINAL REPORT

53. <u>Final Report</u>. Within 30 days after completion of all Work required by this Settlement Agreement, Respondents shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Settlement Agreement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports." The final report shall include the following certification signed by a person who supervised or directed the preparation of that report:

To the best of my knowledge, after thorough investigation, I certify that the information contained in, or accompanying, this submission is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

#### XI. SITE ACCESS AND INSTITUTIONAL CONTROLS

- 54. If any Respondent owns or controls the Site, or any other property where access is needed to implement this Settlement Agreement, such Respondent shall, commencing on the Effective Date, provide EPA and its representatives, including contractors, with access at all reasonable times to the Site, or such other property, to conduct any activity related to this Settlement Agreement. Any Respondent who owns or controls property at the Site shall, at least 30 days prior to the conveyance of any interest in real property at the Site, give written notice to the transferee that the property is subject to this Settlement Agreement and written notice to EPA of the proposed conveyance, including the name and address of the transferee. Any Respondent who owns or controls property at the Site also agrees to require that their immediate successors/transferees comply with the immediately preceding sentence, this Section, and Section XII (Access to Information).
- 55. Where any action under this Settlement Agreement is to be performed in areas owned by, or in possession of, someone other than Respondents, Respondents shall use their best efforts to obtain all necessary access agreements 60 days after the approval of the RD Work Plan, or as otherwise specified in writing by the EPA Remedial Project Manager. Respondents shall immediately notify EPA if, after using their best efforts, they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondents shall describe in writing their efforts to

obtain access. EPA may then assist Respondents in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate. Respondents shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XV (Payment of Response Costs). Nothing herein shall preclude Respondents from pursuing access from any property owner pursuant to N.J.S.A. 58:10B-16; however, filing of such action shall not relieve Respondents from any of the obligations imposed by the terms of this Paragraph.

- 56. Notwithstanding any provision of this Settlement Agreement, EPA retains all of its access authorities and rights, as well as all of its rights to require land/water use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.
- 57. If Respondents cannot obtain access agreements, EPA may obtain access for Respondents, perform those tasks or activities with EPA contractors, or terminate the Settlement Agreement. If EPA performs those tasks or activities with EPA contractors and does not terminate the Settlement Agreement, Respondents shall perform all other activities not requiring access to that site and shall reimburse EPA for all costs incurred in performing such activities. Respondents shall integrate the results of any such tasks undertaken by EPA into its reports and deliverables.

#### XII. ACCESS TO INFORMATION

- 58. Respondents shall provide to EPA, upon request, copies of all documents and information within their possession or control or that of their contractors or agents relating to implementation of this Settlement Agreement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Work. Respondents shall also make available to EPA, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.
- 59. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when it is submitted to EPA, or if EPA has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondents. Respondents shall segregate and clearly identify all documents or information submitted under this Settlement Agreement for which Respondents assert business confidentiality claims.

- 60. Respondents may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondents assert such a privilege in lieu of providing documents, they shall provide EPA with the following: a) the title of the document, record, or information; b) the date of the document, record, or information; c) the name and title of the author of the document, record, or information; d) the name and title of each addressee and recipient; e) a description of the contents of the document, record, or information; and f) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.
- 61. No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at, or around, the Site.

#### XIII. RECORD RETENTION

- 62. During the pendency of this Settlement Agreement and until 10 years after the Respondents' receipt of EPA's Notice of Completion of Work pursuant to Section XXIX (Notice of Completion of Work), each Respondent shall preserve and retain all non-identical copies of documents, records, and other information (including documents, records, or other information in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. During this 10-year period, Respondents shall also instruct their contractors and agents to preserve all documents, records, and other information of whatever kind, nature, or description relating to performance of the Work.
- 63. At the conclusion of this document retention period, Respondents shall notify EPA at least 90 days prior to the destruction of any such documents, records, or other information and, upon request by EPA, Respondents shall deliver any such documents, records, or other information to EPA. Respondents may assert that certain documents, records, and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege, they shall provide EPA with the following: a) the title of the document, record, or other information; b) the date of the document, record, or other information; d) the name and title of each addressee and recipient; e) a description of the subject of the document, record, or other information; and f) the privilege asserted by Respondents. However, no documents, records, or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.
- 64. Each Respondent hereby certifies individually that to the best of its knowledge and belief,

after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other information (other than identical copies) relating to its potential CERCLA liability regarding the Site since receipt of its notification of potential liability by EPA or the State r the filing of suit against it regarding the Site, and that it has fully complied with any and all EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

#### XIV. COMPLIANCE WITH OTHER LAWS

- 65. Respondents shall undertake all action that this Settlement Agreement requires in accordance with the requirements of all applicable local, state, and federal laws and regulations, unless an exemption from such requirements is specifically provided by law or in this Settlement Agreement. The activities conducted pursuant to this Settlement Agreement, if approved by EPA, shall be considered consistent with the NCP.
- 66. Except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), and the NCP, no permit shall be required for any portion of the Work conducted entirely on-site. Where any portion of the Work requires a federal or state permit or approval, Respondents shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.
- 67. This Settlement Agreement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

#### XV. PAYMENT OF RESPONSE COSTS

# 68. <u>Payment for Future Response Costs</u>:

- a. Respondents shall pay EPA all Future Response Costs not inconsistent with the NCP. On a periodic basis, EPA will send Respondents a bill requiring payment that includes a printout of cost data in EPA's financial management system, known as a SCORPIOS report, which includes direct and indirect costs incurred by EPA and its contractors. Respondent shall make all payments within 30 days of receipt of each bill requiring payment, except as otherwise provided in Paragraph 70 of this Settlement Agreement, by remitting the amount of those costs via EFT, along with the following information, to EPA's Account with Federal Reserve Bank of New York, as follows:
  - i. EFT to be directed to: Federal Reserve Bank of New York
  - ii. Bank Routing Number for Federal Reserve Bank of New York: 021030004
  - iii. Federal Reserve Bank of New York account number receiving payment: 68010727

iv. SWIFT address: FRNYUS33

v. Address: Federal Reserve Bank of New York
33 Liberty Street
New York, NY 10045

vi. Field Tag 4200 of the Fedwire message to read: **D 68010727 Environmental Protection Agency** 

vii. Case Number: CERCLA-02-2014-2027

viii. Amount of payment: ix. Name of Remitter:

x. Site/Spill identifier: 02 - B7

b. At the time of payment, Respondents shall send a notice that payment has been made, which references the date of the EFT, the payment amount, the name of the Site, the case index number, the EPA Site/Spill number, and the name and address of the party making payment to the United States, to the following:

Sherrel Henry, Remedial Project Manager Emergency & Remedial Response Division U.S. Environmental Protection Agency 290 Broadway - 20<sup>th</sup> Floor New York, New York 10007-1866 henry.sherrel@epa.gov

Michael J. van Itallie, Esq.
Office of Regional Counsel
U.S. Environmental Protection Agency
290 Broadway, 17<sup>th</sup> Floor
New York, NY 10007-1866
vanitallie.michael@epa.gov

EPA Cincinnati Finance Center Attn: Richard Rice 26 W. Martin Luther King Drive Cincinnati, Ohio 45268

E-mail (to both): cinwd acctsreceivable@epa.gov and rice.richard@epa.gov

c. The total amount that Respondents shall pay pursuant to Subparagraph 68(a) shall be deposited in the Shieldalloy Metallurgical Superfund Site Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

- 69. In the event that the payments for Future Response Costs are not made within 30 days of Respondents' receipt of a bill, Respondents shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XVIII.
- 70. Respondents may contest payment of any Future Response Costs billed under Paragraph 67, if they determine that EPA has made an accounting error, or if they believe EPA incurred excess costs as a direct result of an EPA action that was inconsistent with the NCP. Such objection shall be made in writing within 30 days of receipt of the bill in question and must be sent to the EPA Remedial Project Manager. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondents shall within the 30-day period pay all uncontested Future Response Costs to EPA in the manner described in Paragraph 68. Simultaneously, Respondents shall establish an interestbearing escrow account in a federally-insured bank duly chartered in the State of New Jersey and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondents shall send to the EPA Remedial Project Manager a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Respondents shall initiate the Dispute Resolution procedures in Section XVI (Dispute Resolution). If EPA prevails in the dispute, within 7 days of the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 68. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to EPA in the manner described in Paragraph 68. Respondents shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XVI (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse EPA for its Future Response Costs.

#### XVI. DISPUTE RESOLUTION

- 71. Unless this Settlement Agreement expressly provides otherwise, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.
- 72. If Respondents object to any EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, they shall notify EPA in writing of their

objection(s) within 21 days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondents shall have 30 days from EPA's receipt of Respondents' written objection(s) to resolve the dispute through formal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA.

73. Any agreement reached by the parties pursuant to this Section shall be in writing and shall, upon signature by both parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, the Chief of the Special Projects Superfund Branch of the Emergency and Remedial Response Division, EPA Region 2, or higher level EPA management official will issue a written decision on the dispute to Respondents. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondents' obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs. Respondents shall proceed in accordance with EPA's final decision regarding the matter in dispute, regardless of whether Respondents agree with the decision.

#### XVII. FORCE MAJEURE

- 74. Respondents agree to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a force majeure. For purposes of this Settlement Agreement, a force majeure is defined as any event arising from causes beyond the control of Respondents, or of any entity controlled by Respondents, including, but not limited to, their contractors and subcontractors, that delays or prevents performance of any obligation under this Settlement Agreement despite Respondents' best efforts to fulfill the obligation. The requirement that Respondents exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure event: (a) as it is occurring; and (b) following the potential force majeure event, such that the delay is minimized to the greatest extent possible. Force majeure does not include financial inability to complete the Work or increased cost of performance.
- 75. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondents shall notify EPA orally within 48 hours of when Respondents first knew that the event might cause a delay. Within 5 days thereafter, Respondents shall provide to EPA in writing: an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health, welfare, or the environment. Failure to comply with the

above requirements shall preclude Respondents from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure. Respondents shall be deemed to know of any circumstance of which Respondents, any entity controlled by Respondents, or Respondents' contractors knew or should have known.

76. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, EPA will notify Respondents in writing of its decision. If EPA agrees that the delay is attributable to a *force majeure* event, EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

#### XVIII. STIPULATED PENALTIES

- 77. Respondents shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 78 and 79 for failure to comply with the requirements of this Settlement Agreement specified below, unless excused under Section XVI (Dispute Resolution) or Section XVII (Force Majeure). "Compliance" by Respondents shall include completion of the activities under this Settlement Agreement or any RD Work Plan or other plan approved under this Settlement Agreement identified below in accordance with all applicable requirements of law, this Settlement Agreement, the SOW, and any plans or other documents approved by EPA pursuant to this Settlement Agreement and within the specified time schedules established by, and approved under, this Settlement Agreement.
- 78. For the following major deliverables, stipulated penalties shall accrue in the amount of \$1500 per day, per violation, for the first 14 days of noncompliance; \$2,500 per day, per violation, for the 15<sup>th</sup> through the 30<sup>th</sup> day of noncompliance; and \$3,500 per day, per violation for all violations lasting beyond 30 days:
  - a. Draft RD Work Plan and
  - b. RD Work Plan.
- 79. For the following interim deliverables, stipulated penalties shall accrue in the amount of \$750 per day, per violation, for the first 14 days of noncompliance; \$1,500 per day, per violation, for the 15<sup>th</sup> through 30<sup>th</sup> day of noncompliance: \$3,000 per day, per violation, for all violations lasting beyond 30 days:
  - a. Submission of the name of the Project Coordinator to EPA(in the event of a change) pursuant to Section VII of this Settlement Agreement;

- b. Design sampling and analysis plan;
- c. RD Quality Assurance Project Plan ("RD QAPP");
- d. Health and Safety Plan;
- e. Field Sampling and Analysis Plan;
- f. Preliminary RD Reports;
- g. Pre-final RD Reports;
- h. Final RD Reports; and
- i. Certificate of insurance.
- 80. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 91, Respondents shall be liable for a stipulated penalty in the amount of \$100,000.
- 81. All penalties shall begin to accrue on the day after the complete performance is due, or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: a) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency; and b) with respect to a decision by the Chief of the Special Projects Superfund Branch of the Emergency and Remedial Response Division, EPA Region 2 or higher level EPA management official, under Paragraph 73 of Section XVI (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA management official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.
- 82. Following EPA's determination that Respondents have failed to comply with a requirement of this Settlement Agreement, EPA may give Respondents written notification of the failure and describe the noncompliance. EPA may send Respondents a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondents of a violation.
- 83. Respondents shall pay EPA all penalties accruing under this Section within 30 days of Respondents' receipt from EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures under Section XVI (Dispute Resolution). All payments to EPA under this Section shall indicate that the payment is for stipulated penalties, and shall be

remitted via Electronic Funds Transfer ("EFT"), along with the following information, to EPA's Account with Federal Reserve Bank of New York, as follows:

- i. EFT to be directed to: Federal Reserve Bank of New York
- ii. Bank Routing Number for Federal Reserve Bank of New York: **021030004**
- iii. Federal Reserve Bank of New York account number receiving payment: **68010727**
- iv. SWIFT address: FRNYUS33
- v. Address: Federal Reserve Bank of New York
  33 Liberty Street
  New York, NY 10045
- vi. Field Tag 4200 of the Fedwire message to read: **D 68010727 Environmental Protection Agency**
- vii. Case Number: CERCLA-02-2014-2027
- viii. Amount of payment:
- ix. Name of Remitter:
- x. Site/Spill identifier: 02 B7

To ensure that a payment is properly recorded, a letter should be sent to the EPA parties specified in Paragraph 68b, within one week of the EFT, which references the date of the EFT, the payment amount, that the payment is for stipulated penalties, the name of the Site, the case number, and the name and address of the party making payment to the United States.

- 84. The payment of penalties shall not alter in any way Respondents' obligation to complete performance of the Work required under this Settlement Agreement.
- 85. Penalties shall continue to accrue as provided by Paragraph 81 during any dispute resolution period but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's decision.
- 86. If Respondents fail to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 83. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. § 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Settlement Agreement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Section XX (Reservation of Rights by

EPA). Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

#### XIX. COVENANT NOT TO SUE BY EPA

87. In consideration of the actions that Respondents will perform and the payments that Respondents will make under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work performed under this Settlement Agreement and for recovery of Future Response Costs. This covenant not to sue shall take effect upon the Effective Date. This covenant not to sue is conditioned upon Respondents' complete and satisfactory performance of all obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Section XV. This covenant not to sue extends only to Respondents and does not extend to any other person.

#### XX. RESERVATION OF RIGHTS BY EPA

- 88. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, except as specifically provided in this Settlement Agreement, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.
- 89. <u>Reservations as to SMC</u>. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against SMC with respect to all other matters, including, but not limited to:
  - a. claims based on a failure by SMC to meet a requirement of this Settlement Agreement;
  - b. liability for costs not included within the definition of Future Response Costs;
  - c. liability for performance of response actions other than the Work;
  - d. criminal liability;

- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release, or threat of release of Waste Materials outside of the Site; and
- g. liability for costs incurred, or to be incurred, by the Agency for Toxic Substances and Disease Registry related to the Site, which are not paid as Future Response Costs under this Settlement Agreement.
- 90. <u>Reservations as to TRC</u>. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against TRC with respect to all other matters, including, but not limited to:
  - a. claims based on a failure by TRC to meet a requirement of this Settlement Agreement, except for a requirement in this Settlement Agreement which relates to the contaminant perchlorate or radioactive contamination;
  - b. liability for costs not included within the definition of Future Response Costs;
  - c. liability for performance of response actions other than the Work;
  - d. criminal liability;
  - e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
  - f. liability arising from the past, present, or future disposal, release, or threat of release of Waste Materials outside of the Site caused or contributed by TRC; and
  - g. liability for costs incurred, or to be incurred, by the Agency for Toxic Substances and Disease Registry related to the Site, which are not paid as Future Response Costs under this Settlement Agreement.
- 91. Work Takeover. In the event EPA determines that Respondents have ceased implementation of any portion of the Work, are seriously or repeatedly deficient or late in their performance of the Work, or are implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may assume the performance of any or all portion(s) of the Work as EPA determines necessary. Respondents may invoke the procedures set forth in Section XVI (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs that the United States incurs in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that

Respondents shall pay pursuant to Section XV (Payment of Response Costs). Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

#### XXI. COVENANT NOT TO SUE BY RESPONDENTS

- 92. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, past response actions, Future Response Costs, or this Settlement Agreement, including, but not limited to:
  - a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;
  - b. any claim arising out of response actions at, or in connection with, the Site, including any claim under the United States Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or
  - c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work or payment of Future Response Costs.
- 93. These covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Subparagraphs 89(b), (c), and (e) (g) and 90(b), (c), and (e) -(g) but only to the extent that Respondents' claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.
- 94. Respondents reserve, and this Settlement Agreement is without prejudice to, claims against the United States subject to the provisions of Chapter 171 of Title 28 of the United States Code, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States while acting within the scope of his office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the alleged act or omission occurred. However, any such claim shall not include a claim for any damages caused, in whole or in part, by the act or omission of any person, including any contractor, who is not a federal employee as that term is defined in 28 U.S.C. § 2671; nor shall any such claim include a claim based on EPA's selection of response actions, or the oversight or approval of Respondents' plans or activities. The foregoing applies only to claims that are brought pursuant to any statute other than CERCLA and for which the waiver of sovereign immunity is found in a statute other than CERCLA.

95. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

#### XXII. OTHER CLAIMS

- 96. By issuance of this Settlement Agreement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents. The United States or EPA shall not be deemed a party to any contract entered into by Respondents or their directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement Agreement.
- 97. Except as expressly provided in Section XIX (Covenant Not to Sue by EPA), nothing in this Settlement Agreement constitutes a satisfaction of, or release from, any claim or cause of action against Respondents or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including, but not limited to, any claims of the United States for costs, damages, and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.
- 98. No action or decision by EPA pursuant to this Settlement Agreement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

#### XXIII. CONTRIBUTION / EFFECT OF SETTLEMENT

- 99. a. The Parties agree that this settlement constitutes an administrative settlement pursuant to which each Respondent has, as of the Effective Date, resolved liability to the United States within the meaning of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), and is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), or as may be otherwise provided by law, for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work and Future Response Costs.
- b. The Parties further agree that this settlement constitutes an administrative settlement pursuant to which each Respondent has, as of the Effective Date, resolved liability to the United States within the meaning of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. §9613(f)(3)(B).
- c. Except as provided in Section XIX (Covenant Not to Sue by Respondents) of this Settlement Agreement, nothing in this Settlement Agreement precludes the United States or

Respondents from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing herein diminishes the right of the United States, pursuant to Sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

#### XXIV. INDEMNIFICATION

- 100. Respondents shall indemnify, save, and hold harmless the United States, its officials, agents, contractors, subcontractors, employees, and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondents agree to pay the United States all costs incurred by the United States, including, but not limited to, attorneys fees and other expenses of litigation and settlement, arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into, by, or on behalf of Respondents in carrying out activities pursuant to this Settlement Agreement. Neither Respondents nor any such contractor shall be considered an agent of the United States.
- 101. The United States shall give Respondents notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.
- 102. Respondents waive all claims against the United States for damages or reimbursement or for set-off of any payments made, or to be made, to the United States, arising from, or on account of, any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on, or relating to, the Site, including, but not limited to, claims on account of construction delays. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from, or on account of, any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on, or relating to, the Site.

#### XXV. INSURANCE

103. At least 30 days prior to commencing any on-Site Work under this Settlement Agreement, Respondents shall secure and shall maintain for the duration of this Settlement Agreement comprehensive general liability insurance and automobile insurance with limits of 1

million dollars per occurrence and automobile liability insurance with limits of \$1 million, combined single limit, and \$5 million in excess umbrella liability covering both the comprehensive general liability and automobile liability insurance policies, each naming the EPA as an additional insured. Within the same period, Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement Agreement. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondents need provide only that portion of the insurance described above that is not maintained by such contractor or subcontractor.

#### XXVI. FINANCIAL ASSURANCE

- 104. Within 30 days of the Effective Date, Respondents shall establish and maintain financial security for the benefit of EPA in the amount of \$250,000 in one or more of the following forms, to secure the full and final completion of Work by Respondents:
  - a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;
  - b. one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to EPA equaling in the amount of \$250,000;
  - c. a trust fund administered by a trustee acceptable in all respects to EPA;
  - d. a policy of insurance issued by an insurance carrier acceptable in all respects to EPA, which ensures the payment and/or performance of the Work;
  - e. a corporate guarantee to perform the Work provided by one or more parent corporations or subsidiaries of at least one of the Respondents, or by one or more unrelated corporations that have a substantial business relationship with at least one of Respondents; including a demonstration that any such company satisfies the financial test requirements of 40 C.F.R. Part 264.143(f); and/or
  - f. a corporate guarantee to perform the Work by one or more of Respondents, including a demonstration that any such Respondent satisfies the requirements of 40 C.F.R. Part 264.143(f).

- 105. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondents shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 104, above. In addition, if at any time EPA notifies Respondents that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondents shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondents' inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement
- 106. If Respondents seek to ensure completion of the Work through a guarantee pursuant to Subparagraph 104(e) or 104(f) of this Settlement Agreement, Respondents shall: (i) demonstrate to EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date, to EPA. For the purposes of this Settlement Agreement, wherever 40 C.F.R. Part 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the current cost estimate of \$250,000 for the Work at the Site shall be used in relevant financial test calculations.
- 107. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 104 of this Section, Respondents may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA. In the event of a dispute, Respondents may change the form or amount of financial assurance required hereunder only in accordance with a final decision resolving such dispute pursuant to Section XVI (Dispute Resolution).
- 108. Respondents may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by EPA, provided that EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondents may change the form of financial assurance required hereunder only in accordance with a final decision resolving such dispute pursuant to Section XVI (Dispute Resolution).

#### XXVII. INTEGRATION/APPENDICES

109. This Settlement Agreement and any deliverables, technical memoranda, specifications, schedules, documents, plans, reports (other than progress reports), etc. that will be developed

pursuant to this Settlement Agreement and become incorporated into, and enforceable under, this Settlement Agreement constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Settlement Agreement.

- 110. In the event of a conflict between any provision of this Settlement Agreement and the provisions of any document attached to this Settlement Agreement or submitted or approved pursuant to this Settlement Agreement, the provisions of this Settlement Agreement shall control.
- 111. The following documents are attached to and incorporated into this Settlement Agreement:

"Appendix A" is the SOW.

"Appendix B" is the OU 2 ROD.

"Appendix C" is a plan of the Site.

# XXVIII. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

- 112. This Settlement Agreement shall be effective on the date it is signed by the EPA Region 2 Director, Emergency and Remedial Response Division, or his delegatee (the "Effective Date"). EPA shall provide a fully executed copy of the Settlement Agreement on, or as promptly as possible after, the date it is signed by EPA.
- 113. This Settlement Agreement may be amended by mutual agreement of EPA and Respondents. Amendments shall be in writing and shall be effective when signed by the Chief of the Special Projects Superfund Branch of the Emergency and Remedial Response Division, EPA Region 2, or higher level EPA management official. The EPA Remedial Project Manager does not have the authority to sign amendments to the Settlement Agreement.
- 114. No informal advice, guidance, suggestion, or comment by the EPA Remedial Project Manager or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents to EPA shall relieve Respondents of their obligation to obtain any formal EPA approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

#### XXIX. NOTICE OF COMPLETION OF WORK

115. When EPA determines, after EPA's review of the Final Report, that all Work has been fully performed in accordance with the other requirements of this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including, but not limited to, payment of Future Response Costs and retention of records. EPA will provide written notice to Respondents. If EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the RD Work Plan if appropriate to correct such deficiencies. Respondents shall implement the modified and approved RD Work Plan and shall submit the required deliverables. Failure by Respondents to implement the approved modified RD Work Plan shall be a violation of this Settlement Agreement.

It is so ORDERED AND AGREED this	 day of _	MARCH	, 2015.
1 2			

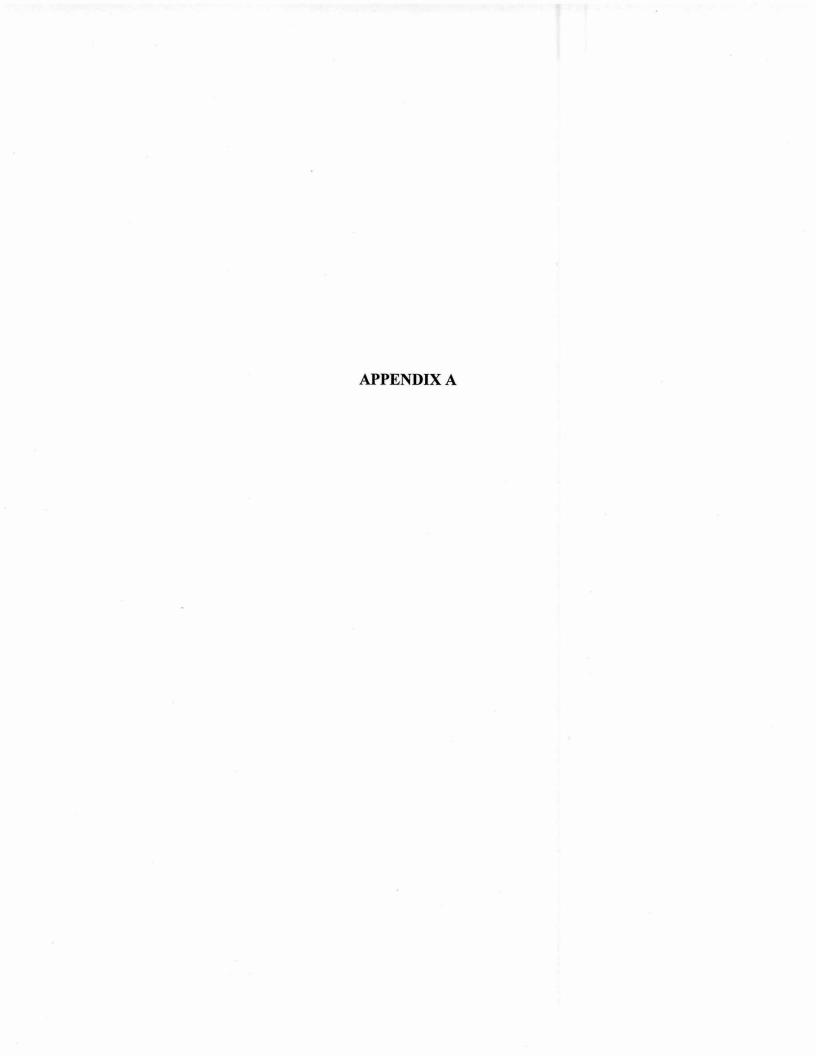
Emergency and Remedial Response Division

Region 2

United States Environmental Protection Agency

In the Matter of CERCLA Docket No. 02-2014-2029
For the Respondents:
For Shieldalloy Metallurgical Corporation
By: Danie R. Shea
Title: Director
Date: 23 February 2015
For TRC Companies, Inc.
Ву:
Title:
Date:

in the Matter of CERCLA Docket No. 02-2014-2029
For the Respondents:
For Shieldalloy Metallurgical Corporation
By:
Title:
Date:
For TRC Companies, Inc.
Ву:
Title: Sr. VP
Date: 2/20/15



## STATEMENT OF WORK

# FOR THE REMEDIAL DESIGN

# **OPERABLE UNIT 2**

# SHIELDALLOY METALLURGICAL CORPORATION SUPERFUND SITE

Borough of Newfield, Gloucester County, State of New Jersey

**EPA Region II** 

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#### 1. INTRODUCTION

This Statement of Work (SOW) is incorporated into the Administrative Settlement Agreement and Order on Consent (Settlement Agreement) for the implementation of the remedial design for Operable Unit 2 (RD) for the Shieldalloy Metallurgical Corporation Superfund Site (Site) and is an integral and enforceable part of the Settlement Agreement. All definitions in the Settlement Agreement are incorporated by reference into this SOW.

- 1.1.1 The purpose of this SOW is to provide for completion of the Work necessary to complete the remedial design to implement the remedial action (RA) selected in the OU2 ROD issued by EPA for the Site. Work includes all RD activities the Respondents are required to perform under the Settlement Agreement. The term, "Respondents," shall have the meaning set forth in Paragraph 1 of the Settlement Agreement. This SOW sets forth the procedures and requirements for completing remedial design.
- 1.1.2 Structure of the SOW. Section 2 sets forth EPA's and the Respondents' responsibilities for community involvement (CI). Section 3 sets forth the process for developing the RD, which includes the submission of specified primary deliverables. Section 4 describes the content of the supporting deliverables and the general requirements regarding Respondents' submission of, and EPA's review of, approval of, comment on, and/or modification of, the deliverables. Section 5 addresses State participation, and Section 7 provides a list of references.
- 1.1.3 The Scope of the Remedy includes the actions described in Section 13 of the ROD, and include the following:
  - Capping the 1.3 acres of vanadium- and chromium-impacted soils in the eastern storage areas;
  - Establishing institutional controls in the form of deed restrictions/environmental easements and/or restrictive covenants on future uses of the facility to ensure that residential use is prohibited and to ensure that all existing covers/caps are not disturbed;
  - Maintaining the existing security measures at the site (e.g., signage and fencing);
  - Maintaining the existing covers/caps;

- Performing further vanadium and hexavalent chromium delineation in areas of the Lower Hudson Branch, including the "pond area" of the Hudson Branch during the pre-remedial design.
- Excavating approximately 9,800 cubic yards of Hudson Branch sediments to a depth of 12 inches in the channel and a depth of six inches in certain areas outside the channel to meet remediation goals listed in the Remedial Goals section of this ROD and eliminate ecological risk;
- Backfilling the excavated areas with clean material to match the surrounding grade and restoring, as necessary;
- Monitoring surface water in the Hudson Branch for vanadium until the NJDEP surface water quality standard of 12 micrograms/liter (ug/L) is met.

Reviewing site conditions at least once every five years, as required by CERCLA.

1.1.4 The terms used in this SOW that are defined in CERCLA, in regulations promulgated under CERCLA, or in the Settlement Agreement, have the meanings assigned to them in CERCLA, in such regulations, or in the Settlement Agreement, except that the term "Paragraph" or "¶" means a paragraph of the SOW, unless otherwise stated.

# 2. COMMUNITY INVOLVEMENT

- 2.1 Community Involvement Responsibilities
  - 2.1.1 EPA has the lead responsibility for developing and implementing community involvement activities at the Site. Previously, during the OU 2 remedial investigation/feasibility study phase], EPA developed a Community Involvement Plan (CIP) for the Site. Pursuant to 40 C.F.R. § 300.435(c), EPA shall review the existing CIP and determine whether it should be revised to describe further public involvement activities during the Work that are not already addressed or provided for in the existing CIP
  - 2.1.2 If requested by EPA, Respondents shall support EPA's community involvement activities. EPA may describe in its CIP Respondents' responsibilities for community involvement activities. All community involvement activities conducted by Respondents at EPA's request are subject to EPA's oversight.

#### 3. REMEDIAL DESIGN

#### 3.1 RD Work Plan

- 3.1.1 Respondents shall submit a Remedial Design (RD) Work Plan (RDWP) for EPA approval. The RDWP must include:
  - .1 Plans for implementing all RD activities identified in this SOW, in the RDWP, or required by EPA to be conducted to develop the RD;
  - .2 A description of the overall management strategy for performing the RD, including a proposal for phasing of design and construction, if applicable;
  - .3 A description of the proposed general approach to contracting, and performance of operation and maintenance, as necessary to implement the Work;
  - .4 A description of the roles and responsibility and authority of all organizations and key personnel involved with the development of the RD;
  - .5 Descriptions of any areas requiring clarification and/or anticipated problems (e.g., data gaps) and a description of the proposed pre-design investigation to fill the data gaps
  - Descriptions of permitting requirements and other regulatory requirements necessary to conduct the Work;
  - .7 Description of plans for obtaining access in connection with the Work, such as permitting, property acquisition, property leases, and/or easements; and
  - .8 All supporting deliverables required to accompany the RDWP as specified in the RD Schedule set forth in ¶5.2 ("RD Schedule").
- 3.1.2 Respondents shall communicate regularly with EPA to discuss design issues as necessary, as directed or determined by EPA. Respondents will provide the EPA at least 14 days' notice prior to major field Pre-Design Investigation (PDI) efforts

# 3.2 Pre-Design Investigation

3.2.1 The purpose of the PDI is to address design data gaps by conducting additional field investigations. PDI work will include delineation of the extent of vanadium and hexavalent chromium in the Lower Hudson Branch exceeding remediation goals.

- 3.2.2 Although not part of the ROD, Respondents shall collect four samples from Burnt Mill Pond, from the 0-6" depth, at the approximate locations sampled in the RI and analyze them for total and hexavalent chromium. Work pertaining to this task will be submitted to EPA under separate cover in letter format and include a description of the proposed sample means and methods, referencing the approved QAPP, SAP, and HASP. Respondent will perform the sampling, and report the results to the EPA.
- 3.2.3 PDI Work Plan. Respondents shall submit a PDI Work Plan (PDIWP), as a component of the RD workplan, for EPA approval. The PDIWP must include:
  - .1 A sampling plan including media to be sampled, contaminants or parameters (hexavalent chromium and vanadium) for which sampling will be conducted, location (areal extent and depths) and number of samples; and anticipated data statistical methods; and
  - .2 The PDI work Plan shall cross reference the quality assurance/quality control (QA/QC) requirements set forth in the Quality Assurance Project Plan (QAPP) as described in Paragraph 4.
- 3.2.4 Following the PDI, Respondents shall submit a PDI Results Report. This report must include:
  - .1 Summary of the investigations performed;
  - .2 Summary of investigation results;
  - .3 Summary of validated data (i.e., tables and graphics);
  - .4 Data validation reports and laboratory data reports;
  - .5 Narrative interpretation of data and results;
  - .6 Results of statistical and modeling analyses;
  - .7 Photographs documenting the work conducted; and
  - .8 Conclusions and recommendations for RD, including design parameters and criteria.
- 3.2.5 EPA may require Respondents to supplement the PDI Results Report and/or to perform additional pre-design studies.

## 3.3 Preliminary (30%) RD

- 3.3.1 Respondents shall submit a Preliminary (30%) RD for EPA's comment. The 30% design may be submitted concurrently with the PDI Results Report. The Preliminary RD must include:
  - .1 A design criteria report, as described in the *Remedial Design/Remedial Action Handbook*, EPA 540/R-95/059 (June 1995);
  - .2 A proposal for construction phasing;
  - .3 Preliminary drawings and specifications;
  - .4 Descriptions of permit requirements, if applicable;
  - .5 Operation and Maintenance (O&M) Plan outline;
  - .6 Construction Quality Assurance Plan (CQAP) outline; and
  - .7 All supporting deliverables required to accompany the Preliminary RD as specified in the RD Schedule.

## **3.4** Pre-Final (95%) RD

- 3.4.1 Respondents shall submit the Pre-final (95%) RD for EPA's comment. The Pre-final RD must be a continuation and expansion of the previous design submittal and must address EPA's comments regarding the Preliminary RD. The Pre-final RD will serve as the approved Final (100%) RD if EPA approves the Pre-final RD without comments. The Pre-final RD must include:
  - A complete set of construction drawings and specifications that are:

     (i) certified by a Professional Engineer registered in the State; (ii) suitable for procurement; and (iii) follow the Construction Specifications Institute's MasterFormat 2012;
  - A survey and engineering drawings showing existing Site features, such as elements, property borders, easements, and Site conditions:
  - .3 Pre-Final versions of the same elements and deliverables as are required for the [Preliminary] RD;
  - .4 A specification for photographic documentation of the RA; and
  - .5 Supporting deliverables as specified in the RD Schedule.

## **3.5** Final (100%) RD

3.5.1 Respondents shall submit the Final (100%) RD for EPA approval. The Final RD must address EPA's comments on the Pre-final RD and must include final versions of all Pre-final deliverables.

#### 4. **DELIVERABLES**

# 4.1 Applicability

4.1.1 Respondents shall submit deliverables for EPA approval or for EPA comment as specified in the SOW. If neither is specified, the deliverable does not require EPA's approval or comment. Paragraph 4.2 applies to any deliverable that is required to be submitted to EPA. Paragraph 4.3 applies to any deliverable that is required to be certified. Paragraph 4.4 applies to any deliverable that is required to be submitted for EPA approval.

## **4.2** General Requirements

4.2.1 All deliverables must be submitted by the deadlines in the RD Schedule or any other EPA-approved schedule, as applicable Respondents shall submit all deliverables to EPA in electronic form, unless otherwise specified. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5" by 11", Respondents shall also provide EPA with paper copies of such exhibits.

## 4.2.2 <u>Technical Specifications for Deliverables</u>

All spatially referenced data must be delivered in a standard spatial file format, see EDD format requirements cited below, with the ESRI File Geodatabase format currently preferred. All geospatial data must be submitted as unprojected geographic coordinates in decimal degree format using North American Datum 1983 (NAD83) or World Geodetic System 1984 (WGS84) as the datum; where applicable, submissions should also include the collection method(s). Projected coordinates may optionally be included but must be documented. Metadata must accompany all geospatial data and be compliant with the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor (EME), complies with these FGDC and EPA metadata requirements and is available at <a href="https://edg.epa.gov/EME/">https://edg.epa.gov/EME/</a>.

.1 Each file must include an attribute name for each site unit or sub-unit submitted. Consult <a href="http://www.epa.gov/geospatial/policies.html">http://www.epa.gov/geospatial/policies.html</a> for any further available guidance on attribute identification and naming.

EPA will accept data delivered as direct electronic submission. Sampling and monitoring data contained in any deliverables should be submitted in standard regional Electronic Data Deliverable (EDD) format. Region 2's "Comprehensive Electronic Data Deliverable Specification Manual 1.4" (July 2009) explains the systematic implementation of EDD within Region 2, and provides detailed instructions of data preparation and identification of data fields required for data submissions. Additional Region 2 EDD guidance and requirements documents, including the "Electronic Data Deliverables Valid Values Reference Manual" and tables, the "Basic Manual for Historic Electronic Data," the "Standalone EQuIS Data Processor User Guide," and EDD templates, can be found at <a href="http://www.epa.gov/region02/superfund/medd.htm">http://www.epa.gov/region02/superfund/medd.htm</a>.

#### 4.3 Certification

4.3.1 All deliverables that require compliance with this Paragraph 4.3 must be signed by the Respondents' Project Coordinator, or other responsible official of Respondents, and must contain the following statement:

To the best of my knowledge and belief, after thorough investigation, I certify that the information contained in, or accompanying, this submission is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

## 4.4 Approval of Deliverables

#### 4.4.1 Initial Submissions

- After review of any deliverable that is required to be submitted for EPA approval under the Settlement Agreement or the SOW, EPA shall:

  (i) approve, in whole or in part, the submission;
  (ii) approve the submission upon specified conditions;
  (iii) disapprove, in whole or in part, the submission;
  or (iv) any combination of the foregoing.
- .2 EPA also may modify the initial submission to cure deficiencies in the submission if: (i) EPA determines that disapproving the submission and awaiting a resubmission would cause substantial disruption to the Work; or (ii) previous submission(s) have been disapproved due to material

defects and the deficiencies in the initial submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

- 4.4.2 Resubmissions. Upon receipt of a notice of disapproval under ¶4.4.1 (Initial Submissions), or if required by a notice of approval upon specified conditions under ¶4.4.1, Respondents shall, within 30 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the deliverable for approval. After review of the resubmitted deliverable, EPA may: (a) approve, in whole or in part, the resubmission; (b) approve the resubmission upon specified conditions; (c) modify the resubmission; (d) disapprove, in whole or in part, the resubmission, requiring Respondents to correct the deficiencies; or (e) any combination of the foregoing.
- 4.4.3 Implementation. Upon approval, approval upon conditions, or modification by EPA under ¶4.4.1 (Initial Submissions) or ¶4.4.2 (Resubmissions), of any deliverable, or any portion thereof: (a) such deliverable, or portion thereof, will be incorporated into and enforceable under the Settlement Agreement; and (b) Respondents shall take any action required by such deliverable, or portion thereof. The implementation of any non-deficient portion of a deliverable submitted or resubmitted under ¶¶4.4.1 or 4.4.2 does not relieve Respondents of any liability for stipulated penalties under Section [XVIII] of the Settlement Agreement.

# **4.5** Supporting Deliverables

- 4.5.1 Respondents shall submit each of the following supporting deliverables for EPA approval, except as specifically provided. The deliverables must be submitted, for the first time, by the deadlines in the RD Schedule or any other EPA-approved schedule, as applicable. Respondents shall develop the deliverables in accordance with all applicable regulations, guidances, and policies (See Section 7). Respondents shall update each of these supporting deliverables as necessary or appropriate during the course of the Work, and/or as requested by EPA.
- 4.5.2 Health and Safety Plan. The Health and Safety Plan (HASP) describes all activities to be performed to protect on site personnel and area residents from physical, chemical, and all other hazards posed by the Work. Respondents shall update as necessary the existing OU2 RI/FS HASP dated May 1, 2011 or develop a new HASP in accordance with EPA's Emergency Responder Health and Safety and OSHA requirements under 29 C.F.R. §§ 1910 and 1926. The HASP should cover RD activities and should be, as appropriate, updated to cover activities during the RA and updated to cover activities after RA completion. EPA does not approve the HASP, but will review it to ensure that all necessary elements are

- included, and that the plan provides for the protection of human health and the environment.
- 4.5.3 <u>Emergency Response Plan</u>. The Emergency Response Plan (ERP) must describe procedures to be used in the event of an accident or emergency at the Site (for example, power outages, water impoundment failure, treatment plant failure, slope failure, etc.). The ERP must include:
  - .1 Name of the person or entity responsible for responding in the event of an emergency incident;
  - .2 Plan and date(s) for meeting(s) with the local community, including local, State, and Federal agencies involved in the cleanup, as well as local emergency squads and hospitals;
  - .3 Spill Prevention, Control, and Countermeasures (SPCC) Plan (if applicable), as specified in 40 C.F.R. Part 112, describing measures to prevent, and contingency plans for, potential spills and discharges from materials handling and transportation;
  - .4 Notification activities in the event of a release of hazardous substances requiring reporting under Section 103 of CERCLA, 42 U.S.C. § 9603, or Section 304 of the Emergency Planning and Community Right-to-know Act (EPCRA), 42 U.S.C. § 11004; and
  - .5 A description of all necessary actions to ensure compliance with Paragraph 46 (Emergency Response and Notification of Releases) of the Settlement Agreement in the event of an occurrence during the performance of the Work that causes or threatens a release of Waste Material from the Site that constitutes an emergency or may present an immediate threat to public health or welfare or the environment.
  - .6 The existing OU2 RI/FS HASP dated May 1, 2011, will be updated as necessary, to address ERP activities related to the Work.
- 4.5.4 Field Sampling Plan. The Field Sampling Plan (FSP) supplements the QAPP and addresses all sample collection activities. Respondents shall update the existing FSP dated September 1, 2011, as necessary, to address sampling activities related to the Work. The FSP must be written so that a field sampling team unfamiliar with the project would be able to gather the samples and field information required. Respondents shall develop the FSP in accordance with Guidance for Conducting Remedial Investigations and Feasibility Studies, EPA/540/G 89/004 (Oct. 1988).

# 4.5.5 Quality Assurance Project Plan.

- .1 The Quality Assurance Project Plan (QAPP) addresses sample analysis and data handling regarding the Work.
- .2 The QAPP must include a detailed explanation of Respondents' quality assurance, quality control, and chain of custody procedures for all treatability, design, compliance, and monitoring samples.
- Respondents shall update the existing QAPP for OU2 dated September 1, 2011 as necessary, to address sampling analysis and data handling related to the Work or develop a new QAPP in accordance with the *Uniform Federal Policy for Quality Assurance Project Plans*, Parts 1-3, EPA/505/B-04/900A though 900C (March 2005).
- .4 The QAPP also must include procedures:
  - .4.1 To ensure that EPA and its [their] authorized representative have reasonable access to laboratories used by Respondents in implementing the Settlement Agreement (Respondents' Labs);
  - .4.2 To ensure that Respondents' Labs analyze all samples submitted by EPA pursuant to the QAPP for quality assurance monitoring;
  - .4.3 To ensure that Respondents' Labs perform all analyses using EPA-accepted methods (i.e., the methods documented in USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, ILM05.4 (Dec. 2006); USEPA Contract Laboratory Program Statement of Work for Organic Analysis, SOM01.2 (amended April 2007); and USEPA Contract Laboratory Program Statement of Work for Inorganic Superfund Methods (Multi-Media, Multi-Concentration), ISM01.2 (January 2010)) or other methods acceptable to EPA;
  - .4.4 To ensure that Respondents' Labs participate in an EPA-accepted QA/QC program or other program QA/QC acceptable to EPA;
  - .4.5 For Respondents to provide EPA with notice at least 14 days prior to any sample collection activity;
  - .4.6 For Respondents to provide split samples and/or duplicate samples to EPA upon request;

- .4.7 For EPA to take any additional samples that it deems [they deem] necessary;
- .4.8 For EPA to provide to Respondents, upon request, split samples and/or duplicate samples in connection with EPA's [and the State's] oversight sampling; and
- .4.9 For Respondents to submit to EPA all sampling and tests results and other data in connection with the implementation of the Settlement Agreement.

## 4.5.6 Construction Quality Assurance/Quality Control Plan

- .1 The purpose of the Construction Quality Assurance Plan (CQAP) is to describe planned and systemic activities that provide confidence that the RA construction will satisfy all plans, specifications, and related requirements, including quality objectives. The purpose of the Construction Quality Control Plan (CQCP) is to describe the activities to verify that RA construction has satisfied all plans, specifications, and related requirements, including quality objectives. The CQA/QCP must:
  - .1.1 Identify, and describe the responsibilities of, the organizations and personnel implementing the CQA/QCP;
  - .1.2 Describe the Performance Standards (PS) required to be met to achieve Completion of the RA;
  - .1.3 Describe the activities to be performed: (1) to provide confidence that PS will be met; and (2) to determine whether PS have been met;
  - .1.4 Describe verification activities, such as inspections, sampling, testing, monitoring, and production controls, under the CQA/QCP;
  - .1.5 Describe industry standards and technical specifications used in implementing the CQA/QCP;
  - .1.6 Describe procedures for tracking construction deficiencies from identification through corrective action;
  - .1.7 Describe procedures for documenting all CQA/QCP activities; and
  - .1.8 Describe procedures for retention of documents and for final storage of documents.

- 4.5.7 O&M Plan. The O&M Plan describes the requirements for inspecting, operating, and maintaining the RA. Respondents shall develop the O&M Plan in accordance with Operation and Maintenance in the Superfund Program, OSWER 9200.1 37FS, EPA/540/F-01/004 (May 2001). The O&M Plan must include the following additional requirements:
  - .1 Description of PS required to be met to implement the ROD;
  - Description of activities to be performed: (1) to provide confidence that PS will be met; and (2) to determine whether PS have been met;
  - .3 Description of records and reports that will be generated during O&M, such as daily operating logs, laboratory records, records of operating costs, reports regarding emergencies, personnel and maintenance records, monitoring reports, and monthly and annual reports to EPA and State agencies;
  - .4 Description of corrective action in case of systems failure, including:
    (i) alternative procedures to prevent the release or threatened release of Waste Material which may endanger public health and the environment or exceed PS; (ii) analysis of vulnerability and additional resource requirements should a failure occur; (iii) notification and reporting requirements should O&M systems fail or be in danger of imminent failure; and (iv) community notification requirements; and
  - .5 Description of corrective action to be implemented in the event that PS are not achieved; and a schedule for implementing these corrective actions.
- 4.5.8 <u>Institutional Controls Implementation and Assurance Plan</u>. The Institutional Controls Implementation and Assurance Plan (ICIAP) describes plans to implement, maintain, and enforce the Institutional Controls (ICs) at the Site. Respondents shall develop the ICIAP in accordance with *Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites*, OSWER 9355.0-89, EPA/540/R-09/001 (Dec. 2012), and *Institutional Controls: A Guide to Preparing Institutional Controls Implementation and Assurance Plans at Contaminated Sites*, OSWER 9200.0-77, EPA/540/R-09/02 (Dec. 2012). The ICIAP must include the following additional requirements:
  - .1 Locations of recorded real property interests (e.g., easements, liens) and resource interests in the property that may affect ICs (e.g., surface, mineral, and water rights) including accurate mapping and geographic information system (GIS) coordinates of such interests;

- .2 A contingency plan if any ICs cannot be implemented, are ineffective, or are not sufficient to prevent exposure; and
- .3 All legal descriptions and survey maps must be prepared according to current American Land Title Association (ALTA).

## 5. SCHEDULES

## **5.1** Applicability and Revisions

5.1.1 Unless otherwise extended by EPA, all deliverables and tasks required under this SOW must be submitted or completed by the deadlines or within the time durations listed in the RD Schedules set forth below. Respondents may submit proposed revised RD Schedules for EPA approval. Upon EPA's approval, the revised RD Schedule supersede the RD Schedule set forth below, and any previously-approved RD Schedule.

## **5.2** RD Schedule

Line	Description of Deliverable, Task	Included Supporting Deliverable	¶Ref.	Deadline
1	RDWP, including PDIWP	HASP/ ERP, FSP, QAPP	3.1, 3.2.2	60 days after the effective date of the Settlement Agreement.
4	PDI Results Report		3.2.24	60 days after receipt of validated data from the final stages of the PDI.
5	Preliminary (30%) RD	, O&M Plan outline,	3.3,	Either concurrent with the PDI Result Report or within 45 days after EPA approval of the PDI Results Report.
6	Pre-final (95%) RD	CQA/QCP, O&M Plan	3.4	90 days after of receipt of EPA approval of the PDI Results Report or the 30% RD, whichever is later.
7	Final (100%) RD	Same as above	3.5	30 days after EPA comments on Pre- final RD

#### 6. STATE PARTICIPATION

- 6.1.1 <u>Copies</u>. Respondents shall, at any time they send a notice, report, deliverable, or other submission to EPA, send a copy of such document to the State. EPA shall, at any time it sends a notice, authorization, approval, disapproval, or certification to Respondents, send a copy of such document to the State.
- 6.1.2 <u>Review and Comment</u>. The State will have a reasonable opportunity for review and comment prior to:

.1 Any EPA approval or disapproval under the Settlement Agreement of any deliverables that are required to be submitted for EPA approval.

#### 7. REFERENCES

The following regulations and guidance documents, among others, apply to the Work. A more complete list may be found on the following EPA Web pages:

Laws, Policy, and Guidance <a href="http://www.epa.gov/superfund/policy/index.htm">http://www.epa.gov/superfund/policy/index.htm</a>

Test Methods Collections http://www.epa.gov/fem/methcollectns.htm

For any regulation or guidance referenced in the Settlement Agreement or SOW, the reference will be read to include any subsequent modification, amendment, or replacement of such regulation or guidance.

- .1 A Compendium of Superfund Field Operations Methods, OSWER 9355.0-14, EPA/540/P-87/001a (Aug. 1987).
- .2 CERCLA Compliance with Other Laws Manual, Part I: Interim Final, OSWER 9234.1-01, EPA/540/G-89/006 (Aug. 1988).
- .3 Guidance for Conducting Remedial Investigations and Feasibility Studies, OSWER 9355.3-01, EPA/540/G-89/004 (Oct. 1988).
- .4 CERCLA Compliance with Other Laws Manual, Part II, OSWER 9234.1-02, EPA/540/G-89/009 (Aug. 1989).
- .5 Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties, OSWER 9355.5-01, EPA/540/G-90/001 (Apr.1990).
- .6 Guidance on Expediting Remedial Design and Remedial Actions, OSWER9355.5-02, EPA/540/G-90/006 (Aug. 1990).
- .7 Guide to Management of Investigation-Derived Wastes, OSWER 9345.3-03FS (Jan. 1992).
- .8 Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, OSWER 9355.7-03 (Feb. 1992).
- .9 Guidance for Conducting Treatability Studies under CERCLA, OSWER 9380.3-10, EPA/540/R-92/071A (Nov. 1992).

- .10 National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, 40 C.F.R. Part 300 (Oct. 1994).
- .11 Guidance for Scoping the Remedial Design, OSWER 9355.0-43, EPA/540/R-95/025 (Mar. 1995)
- .12 Remedial Design/Remedial Action Handbook, OSWER 9355.0-04B, EPA/540/R-95/059 (June 1995).
- .13 EPA Guidance for Data Quality Assessment, Practical Methods for Data Analysis, QA/G-9, EPA/600/R-96/084 (July 2000).
- .14 Operation and Maintenance in the Superfund Program, OSWER 9200.1-37FS, EPA/540/F-01/004 (May 2001).
- .15 Comprehensive Five-year Review Guidance, OSWER 9355.7-03B-P, 540-R-01-007 (June 2001).
- .16 Guidance for Quality Assurance Project Plans, QA/G-5, EPA/240/R-02/009 (Dec. 2002).
- .17 Institutional Controls: Third Party Beneficiary Rights in Proprietary Controls (Apr. 2004), available at <a href="http://www2.epa.gov/sites/production/files/2013-09/documents/ic-thd-pty-rights.pdf">http://www2.epa.gov/sites/production/files/2013-09/documents/ic-thd-pty-rights.pdf</a>.
- .18 Quality Systems for Environmental Data and Technology Programs -- Requirements with Guidance for Use, ANSI/ASQ E4-2004 (2004).
- .19 Uniform Federal Policy for Quality Assurance Project Plans, Parts 1-3, EPA/505/B-04/900A though 900C (Mar. 2005).
- .20 Superfund Community Involvement Handbook, EPA/540/K-05/003 (Apr. 2005).
- .21 EPA Guidance on Systematic Planning Using the Data Quality Objectives Process, QA/G-4, EPA/240/B-06/001 (Feb. 2006).
- .22 EPA Requirements for Quality Assurance Project Plans, QA/R-5, EPA/240/B-01/003 (Mar. 2001, reissued May 2006).
- .23 EPA Requirements for Quality Management Plans, QA/R-2, EPA/240/B-01/002 (Mar. 2001, reissued May 2006).

- .24 USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, ILM05.4 (Dec. 2006).
- .25 USEPA Contract Laboratory Program Statement of Work for Organic Analysis, SOM01.2 (amended Apr. 2007).
- .26 EPA National Geospatial Data Policy, CIO Policy Transmittal 05-002 (Aug. 2008), available at <a href="http://www.epa.gov/geospatial/policies.html">http://www.epa.gov/geospatial/policies.html</a> and <a href="http://www.epa.gov/geospatial/docs/National Geospatial Data Policy.p">http://www.epa.gov/geospatial/docs/National Geospatial Data Policy.p</a> <a href="http://www.epa.gov/geospatial/docs/National Geospatial Data Policy.p">http://www.epa.gov/geospatial/docs/National Geospatial Data Policy.p</a> <a href="http://www.epa.gov/geospatial/docs/National Geospatial Data Policy.p">http://www.epa.gov/geospatial/docs/National Geospatial Data Policy.p</a> <a href="http://www.epa.gov/geospatial/docs/National Geospatial Data Policy.p">http://www.epa.gov/geospatial/docs/National Geospatial Data Policy.p</a>
- .27 Summary of Key Existing EPA CERCLA Policies for Groundwater Restoration, OSWER 9283.1-33 (June 2009).
- .28 Principles for Greener Cleanups (Aug. 2009), available at <a href="http://www.epa.gov/oswer/greenercleanups/">http://www.epa.gov/oswer/greenercleanups/</a>.
- .29 USEPA Contract Laboratory Program Statement of Work for Inorganic Superfund Methods (Multi-Media, Multi-Concentration), ISM01.2 (Jan. 2010).
- .30 Close Out Procedures for National Priorities List Sites, OSWER 9320.2-22 (May 2011).
- .31 Groundwater Road Map: Recommended Process for Restoring Contaminated Groundwater at Superfund Sites, OSWER 9283.1-34 (July 2011).
- .32 Construction Specifications Institute's MasterFormat 2012, available from the Construction Specifications Institute, <a href="www.csinet.org/masterformat">www.csinet.org/masterformat</a>.
- .33 Recommended Evaluation of Institutional Controls: Supplement to the "Comprehensive Five-Year Review Guidance," OSWER 9355.7-18 (Sep. 2011).
- .34 Updated Superfund Response and Settlement Approach for Sites Using the Superfund Alternative Approach (SAA Guidance), OSWER 9200.2-125 (Sep. 2012)
- .35 Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites, OSWER 9355.0-89, EPA/540/R-09/001 (Dec. 2012).

- .36 Institutional Controls: A Guide to Preparing Institutional Controls Implementation and Assurance Plans at Contaminated Sites, OSWER 9200.0-77, EPA/540/R-09/02 (Dec. 2012).
- .37 EPA's Emergency Responder Health and Safety Manual, OSWER Directive 9285.3-12 (July 2005 and updates), available at <a href="http://www.epaosc.org/">http://www.epaosc.org/</a> HealthSafetyManual/manual-index.htm
- .38 Broader Application of Remedial Design and Remedial Action Pilot Project Lessons Learned, OSWER 9200.2-129 (Feb. 2013).
- .39 Guidance for Evaluating Completion of Groundwater Restoration Remedial Actions, OSWER 9355.0-129 (Nov. 2013).
- .40 Groundwater Remedy Completion Strategy: Moving Forward with the End in Mind, OSWER 9200.2-144 (May 2014).

